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THE EU MARKET FOR GREEN BEANS

Market Survey #03

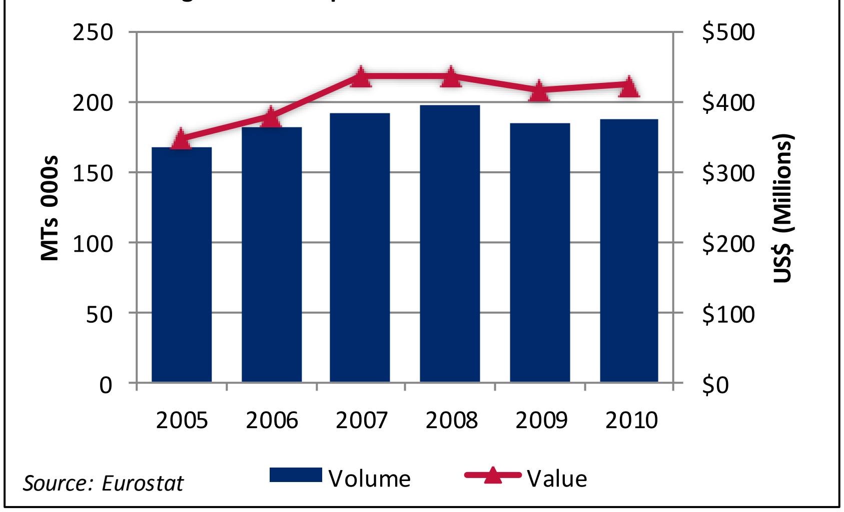
INTRODUCTION

The green bean (*Phaseolus vulgaris*) is a warm-season commercial crop that consists of several unique varieties including fine, extra-fine and bobby. In the international market, fine and extra-fine beans are perceived as superior to bobby due to their smaller size and tenderness. The EU in particular is a major market for fine and extra-fine beans, with Africa acting as the primary counter-seasonal supplier during the Autumn-Winter-Spring period when European production is low. In Africa, the EU importer of choice for fine and extra-fine beans is Kenya due to their high quality, pre-packaged shipments and year-round availability. This survey focuses primarily on the EU market for Kenyan fine and extra-fine beans.

EU MARKET

European import data for the green bean, which includes fine and extra-fine varieties, is difficult to obtain due to lack of reporting and product overlap. The most reliable trade data for fine and extra-fine beans is reflected in Eurostat harmonized schedule (HS) classification of "Fresh or Chilled Beans, Vigna and Phaseolus, Shelled or Unshelled." The genus *Phaseolus* contains five domesticated species in decreasing order of importance: green bean, lima bean, runner bean, tepary bean and year bean. Beans of the *Vigna* genus are Asian varieties of *Phaseolus* that have been reclassified as such and include the cowpea, mung bean, black gram and adzuki bean. Eurostat's inclusion of *Vigna* in the statistics means that the share of P. vulgaris has to be estimated. According to a FAOSTAT statistician, the green bean represents the "large majority" of the *Phaseolus* and *Vigna* beans under production. In addition, according to a 2009 report published by CIRAD, a French agricultural research organization, fine beans comprise most of the EU green bean market supply, followed by bobby and extra-fine.

Figure 1: EU Imports of Fresh or Chilled Beans



EU imports of fresh or chilled beans increased from 166,683 MTs to 186,856 MTs from 2005 to 2010, with corresponding value increasing from US$347.7 million to US422.9 million over the period. As seen in Figure 1, in 2008 volumes hit a

Table 1: EU Imports of Fresh or Chilled Beans

Suppliers	2005		2006		2007		2008		2009		2010	
	MTs	$000s	MTs	$000s	MTs	$000s	MTs	$000s	MTs	$000s	MTs	$000s
Morocco	90,386	146,096	102,378	148,418	110,764	183,869	122,400	190,333	111,337	194,867	111,978	201,738
Kenya	30,442	104,677	34,620	130,509	37,547	152,285	38,340	161,658	34,998	129,948	35,953	130,740
Egypt	26,816	46,949	26,423	47,235	27,606	55,287	21,289	46,816	24,001	51,395	27,094	58,794
Senegal	6,907	19,301	7,069	18,517	6,203	17,542	5,541	12,915	6,234	15,324	5,619	12,892
Ethiopia	4,575	8,648	4,723	15,674	3,396	9,717	3,396	7,286	3,350	9,848	2,854	8,343
Others	7,558	22,099	6,506	18,905	6,388	17,759	5,876	15,692	5,235	14,555	3,358	10,405
Total	**166,683**	**347,771**	**181,720**	**379,258**	**191,904**	**436,459**	**196,843**	**434,701**	**185,154**	**415,938**	**186,856**	**422,912**

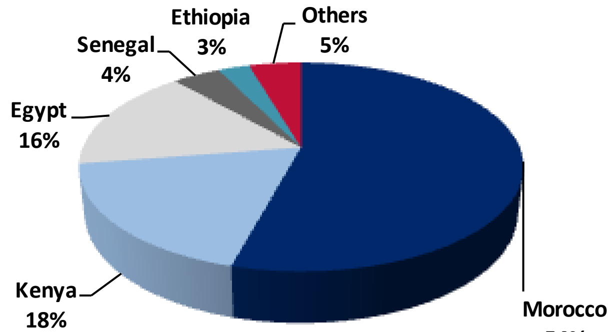
Source: Eurostat

Harmonized Code: 0708200 (CN8): Fresh or Chilled Beans, Vigna and Phaseolus, Shelled or Unshelled high of 196,843 MTs worth US$435 million. According to the 2009 CIRAD report, most of the volume traded in Europe consists of loose beans as opposed to pre-packed beans.

SUPPLIERS

Morocco, Kenya, Egypt, Senegal and Ethiopia comprise the top five exporters of fresh or chilled beans to the EU market (Table 1). Sources indicate that Morocco produces bobby, fine and extra-fine beans, while Egypt and Senegal produce bobby and fine beans. Kenya also produces bobby beans, but is primarily known for its production of fine and extra-fine beans. Ethiopia only produces bobby beans.

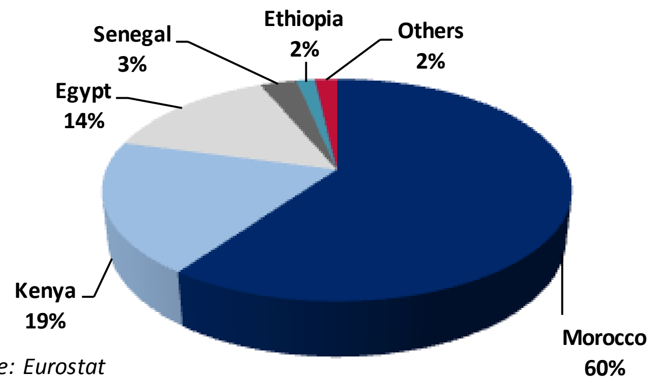
Figure 2: EU Imports of Fresh or Chilled Beans
Market Share by Volume, 2005



Source: Eurostat

Morocco is the top exporter of green beans to the EU market and the lead supplier for France, Netherlands, Belgium and Spain in 2010. For Spain in particular, Morocco is practically the sole supplier of fresh or chilled beans. According to CIRAD, Morocco primarily supplies France with fine beans and the Netherlands with bobby beans. In 2005, Morocco exported 90,386 MTs valued at US$146 million. By 2010, the country had increased its exports to 111,978 MTs worth an estimated US$202 million. Consequently, from 2005 to 2010 its share of the EU market jumped from 54 to 60 percent in volume terms.

Figure 3: EU Imports of Fresh or Chilled Beans
Market Share by Volume, 2010



Source: Eurostat

Industry sources note that the quality of Moroccan beans is generally lower than Senegalese and Kenyan beans, especially in terms of fine beans.

Kenya was the EU's leading bean supplier in 1990s, but has since been overtaken by Morocco. In 2010, Kenya remained the top supplier for the United Kingdom and was the secondary supplier for France, Netherlands and Germany. According to CIRAD, Kenya primarily supplies the United Kingdom and France with fine and extra-fine beans. From 2005 to 2008, EU imports from Kenya steadily increased, from approximately 30,442 MTs to 38,340 MTs. Imports dropped to approximately 34,998 MTs the following year and were 35,953 MTs in 2010. Import values followed the same pattern peaking at US$161.7 million in 2008, before declining in 2009 and rebounding to approximately $130.7 million in 2010. In terms of EU market share by volume, Kenya comprised 18.2 percent of fresh or chilled bean imports in 2005, increasing to 19.2 percent in

Table 2: Top EU Importers of Kenyan Fresh or Chilled Beans

Importers	2005		2006		2007		2008		2009		2010	
	MTs	$000s	MTs	$000s	MTs	$000s	MTs	$000s	MTs	$000s	MTs	$000s
UK	20,030	71,369	23,674	87,864	23,846	95,646	23,036	94,303	21,505	77,026	22,220	78,204
Netherlands	3,914	9,415	3,356	12,605	4,789	19,984	6,929	28,050	6,181	25,683	6,634	26,614
France	3,992	16,142	3,800	15,498	3,632	13,604	4,486	17,183	4,389	14,629	4,288	15,157
Belgium	998	3,577	2,090	7,525	4,228	16,957	2,129	9,978	1,953	7,254	1,874	7,194
Germany	775	1,723	906	4,025	960	5,691	1,697	11,916	926	5,195	910	3,472
Others	733	2,452	795	2,993	92	402	63	229	45	162	28	98
Total	**30,442**	**104,677**	**34,620**	**130,509**	**37,547**	**152,285**	**38,340**	**161,658**	**34,998**	**129,948**	**35,953**	**130,740**

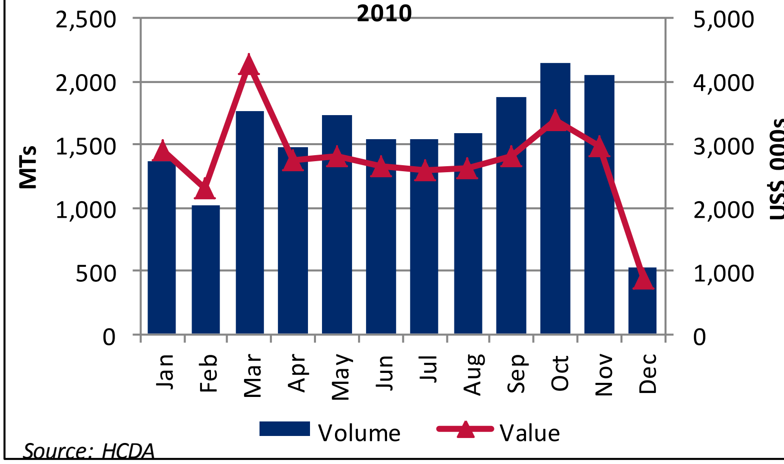
Source: Eurostat

2010.

According to Kenya's Horticultural Crops Development Authority (HCDA), exports of fine and extra-fine beans declined from 23,348 MTs to 18,636 MTs from 2008 to 2010. Export values over the period declined from US$45.3 million to US$32.9 million.

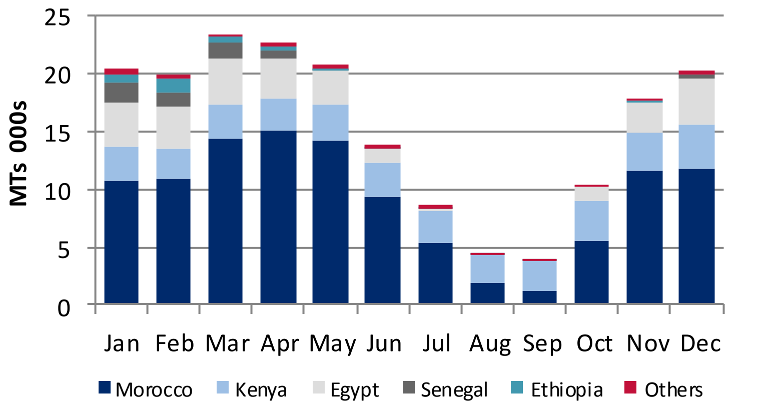
Analyzing fine and extra-fine beans separately shows that Kenya exports more fine beans than extra-fine beans. From 2008 to 2010, fine bean exports decreased from 14,121 MTs to 12,199 MTs and extra-fine beans decreased from 9,227 MTs to 6,437 MTs (a detailed breakdown of importing countries was not available).The HCDA export figures of fine and extra-fine beans should not be confused with Eurostat import data for "Fresh or Chilled Beans" which, as noted earlier, also includes other varieties such as bobby beans and others.

Figure 4: Kenyan Exports of Fine & Extra-fine Beans, 2010



Source: HCDA

Figure 5: EU Monthly Imports of Fresh or Chilled Beans, 2010



Source: Eurostat

Egypt was the leading supplier to Italy and Germany, and the secondary supplier to the United Kingdom, in 2010. Egypt was the dominant supplier of fresh or chilled beans to Italy in the same year. In 2005, Egypt exported 26,816 MTs valued at US$46.9 million to the EU. In 2010, its exports were nearly equal at 27,094 MTs although value had increased to $58.7 million. This period was marked by a slight decrease in overall EU import market share for fresh beans, from 16 to 14 percent. According to a UK importer of fine beans, Egypt primarily produces the dwarf bean, a type of green bean that is thicker than fine beans, due to high temperatures. Local growing conditions tend to be too hot to produce quality fine beans on a consistent basis. However, the importer noted that Egypt does produce fine beans from November to May and that this harvest comprises 10 percent of their fine bean imports

Senegal is a minor player in the European market, shipping 5,619 MTs in 2010, and was the fourth largest supplier for France, Netherlands, Germany and Belgium in 2010. Its share of EU import volume decreased from 4 to 3 percent from 2005 to 2010. Senegal primarily produces bobby beans along with a small amount of fine beans.

Ethiopia is also a minor exporter to the EU, supplying 2,854 MTs in 2010, and was the secondary supplier for Belgium in 2010. Its share of EU import volume decreased from 3 to 2 percent from 2005 to 2010. Ethiopia produces bobby beans.

Zambia is now a minor supplier of fresh and chilled beans. Its EU shipments have steadily dropped from approximately 1,270 MTs in 2005 to just 54 MTs in 2010.

SEASONALITY

EU imports of fresh or chilled beans are seasonal and drop steeply in the third quarter (July to September) as European production of these and other competing vegetables becomes available. During the low months of July and September, Kenya overtakes Morocco as the top supplier.

According to the HCDA, Kenyan export volumes of fine and extra-fine beans peaked from September to November in 2010. The months of March and October recorded the highest values at US$4.2 and US$3.3 million, respectively.

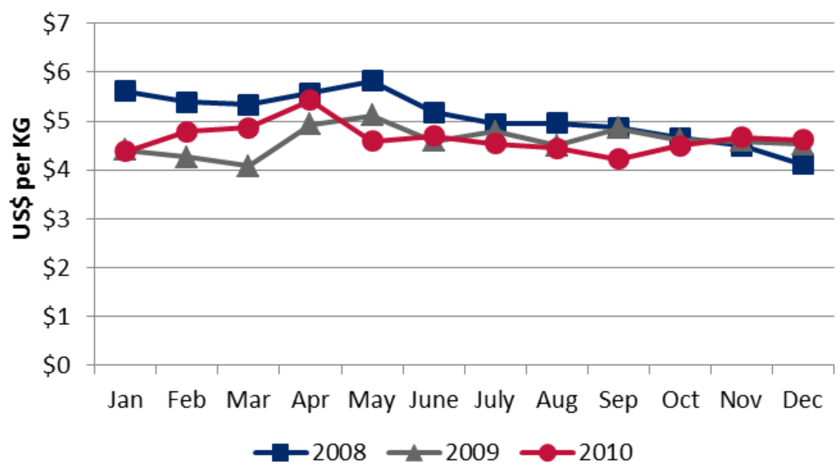
PRICES

According to the Fresh Produce Journal, the annual UK wholesale prices for Kenyan fine beans ranged from US$4.12 to US$5.82 per kg in 2008, US$4.08 to US$5.11 in 2009, and US$4.23 to US$5.43 in 2010.

A full monthly and annual price list for Kenyan extra-fine bean prices was not provided by the Fresh Produce Journal; rather, two spot quotes were provided for June 2011 (US$5.90 per kg) and August 2011 (US$5.74 per kg). Equivalent fine bean sport prices for June 2011 and August 2011 were US$4.24 per kg and US$4.56 per kg, respectively.

An internet search (August 2011) of fine and extra-fine bean prices at major UK retailers reveals a range of US$6.01 to US$13.66 per kg for fine beans and a price of US$13.12 per kg for extra-fine beans.

Figure 6: UK Wholesale Prices for Kenyan Fine Beans



Source: Fresh Produce Journal

STANDARDS, LAWS AND REGULATIONS

Tariff and Trade: According to the TARIC - the EU's online customs tariff database - all Kenyan exports are eligible for tariff preferences under Economic Partnership Agreements (EPAs) initiated in 2007. As a member of the East African Community, Kenyan beans have a 0 percent tariff preference

Grades and Standards: The Commonwealth Secretariat's "Guidelines for Exporters of Fruit and Vegetables to the European Markets" provides quality specifications for fresh beans as follows:

> Fine beans are 6.5-9mm in diameter and 10-13 cm long. Extra-fine beans are 6 to 7.5mm in diameter and 8-12 cm long. Bobby beans are 8-12mm in diameter and 12-16cm long. The beans should be stringless, with no dehydration evident, appearing fresh, bright and uniform in size. The color ranges from light to dark green depending on variety, with straight pods, free from scarring, rots, bruises and blemishes.

The majority of EU food retailers require GlobalGAP certification. GlobalGAP is a private sector organization based in Europe that sets voluntary standards for the certification of agricultural products around the globe. The GlobalGAP standard addresses retailer and consumer concerns over environmental impact, food safety and worker welfare. The United Kingdom's top supermarket chains, including Tesco, Morrisons, Sainsbury's and Asda, all require GlobalGAP certification. Typically, a farm must pass a QMS (Quality Management System) audit, field inspections and follow-up inspections in order to receive and maintain certification. Irrespective of GlobalGAP, UK retailers may also require that fresh bean imports meet the requirements of the British Retail Consortium (BRC) standard.

Maximum Residue Limits (MRLs) are imposed by the EU on fine and extra-fine beans. MRLs for product code "0260010 Beans (with pods) (Green beans (French beans, snap beans), scarlet runner bean, slicing bean, yardlong beans)[1]"

Packaging: Packing operations result in boxes of produce that must be in conformity with the EU quality standard for French beans (standard EC 912/2001[2]). Each box packed for the export market must display the product characteristics,

[1] Please refer to the following website for detailed information regarding the MRL for fine beans: http://ec.europa.eu/sanco_pesticides/public/index.cfm?event=commodity.selection

[2] Please refer to following website for detailed information regarding EU marketing standards for green beans http://www.fsai.ie/uploadedFiles/Consol_Reg912_2001.pdf

that is to say category, size and all the regulation information (origin, name of producer/exporter, etc.). Kenyan fine beans destined for the EU are typically packed in 5-kg and 2-kg boxes. Once in Europe, many wholesalers and retailers re-pack them in 120-g, 200-g, 250-g and 300-g fresh packs for supermarket sale.

Postharvest Handling: Fine and extra-fine beans should be hand-picked before seed visibility develops, and to the length specified by the customers (i.e. retail markets). Once picked, the beans should be collected in crates, protected from the sun and taken to field shade or placed in cold storage as soon as possible. This is critical as freshness and quality depend on pre-cooling and sustained cool temperatures. Beans should be stored at 6°C to 8°C (42.8°F to 46.4°F) should see shelf-life of up to seven days. As of September 2011, cold storage areas at Nairobi's Jomo Kenyatta International Airport can be used for Ksh 0.061 per kg per hour (i.e. US$0.65 per MT per hour) or Ksh 1.45 per kg per day (i.e. US$15.48 per MT per day).

OUTLOOK

On the whole, the EU green bean import market has not fully recovered from its 2008 levels. Although there appears to be room for growth based on this previous peak, it is unknown if and when imports will recover to the volumes they enjoyed in 2007 and 2008. With respect to supply, drought is the major concern, with Kenya coming off the worst drought in sixty years.

From 2009 to 2010, Kenya's fine bean exports were stable, while extra-fine bean exports decreased by 23 percent over the same period. According the ITC-MNS, EU prices for Kenyan green beans, including fine and extra-fine, are expected to increase at the end of the European production season (October-November). EU prices for Kenyan extra-fine beans have increased from US$5.72 to US$5.87 per 2-2.5 kg from November 2010 to November 2011 (ITC-MNS). The higher prices could bolster Kenyan extra-fine bean exports given favorable growing conditions.

During the 2000s, there was industry speculation that Morocco would overtake Kenya as the primary African fine bean producer. Starting in 2010, this possibility receded as Morocco began suffering water shortages and shifting its focus to citrus production. However, according to industry contacts, threats to Kenyan supremacy could emerge from Ghana, Mozambique, South Africa or Zimbabwe if these countries are able to establish reliable production and prepackaging centers.

In 2010, the EU passed a new directive that drastically reduced the residue limits of the pesticide dimethoate on fresh produce imports from 5mg/kg to 0.02mg/kg. According to the CEO of Fresh Produce Exporters Association of Kenya (FPEAK), EU buyers are concerned over the usage of a dimethoate among Kenyan vegetable producers where it is mainly used on tomatoes, cabbage and kale to combat pests. Various media outlets noted in 2011 that Kenyan fresh produce exports to the EU face a "bleak future" as a result of the new limits. On September 23, 2011, a shipment of Kenyan valore (hyacinth) beans was found to have excessive dimethoate residue when entering the United Kingdom. Although the interception was not of fine or extra-fine beans, continuous MRL violations could damage the reputation of Kenyan fresh produce and negatively impact their EU green bean exports. Consequently, Kenya's horticulture industry must actively manage MRLs for all pesticides and curtail the use of dimethoate to ensure that there is no lasting impact on EU trade.

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APPENDIX: BUYER SURVEY

Buyers of Fine Beans

Company	Comments
1. Jackie Leonard & Sons **Old School House, North Anne Street** **Dublin 7** **Tel: +353-1-8733055** **Derek: Derek@Jackieleonards.com** **Justin: Justin@Jackieleonards.com** **http://www.jackieleonards.com/**	Jackie Leonard & Sons is a family run wholesale fruit, vegetable and potato company trading from the Dublin Corporation Fruit market for over four generations since 1892 and supplying a wide customer base from hospitals to restaurants and hotels to supermarkets. Very small importer of fine beans, no useful info, Morocco and Egypt export "regular" beans
2. Minor, Weir & Willis Ltd **241 Wellington Road** **Perry Barr** **Tel: +44 121 344 4554** **Contact: steve.swain@mww.co.uk** **http://www.mww.co.uk/index.htm**	One of the UK's largest handlers of fresh produce. Established in 1963, and located in Birmingham at the heart of the UK's road and rail networks, we specialize in the procurement of produce from around the world for sale in the UK and Continental Europe. Early November 2011: According to representative. 70-80% from Kenya (fine beans), 10% from Egypt and 10% from Zambia, Morocco is also a small producer of fine beans, but does not import from them. No one can compete with Kenya on the fine bean market as of yet. November 30, 2011: Egypt primarily produces dwarf bean, a type of green bean that is thicker than fine beans. Egyptian temperatures are simply too hot to produce quality fine beans on a consistent basis, but the country does produce fine beans from November to May. Egypt remains a secondary supplier of fine beans at best. The new MRL requirements (i.e. dimethoate) is primarily an issue for the wholesale market and not necessarily the retail market (i.e. large agri-producers vs small farm co-ops). Small farmers often meet GlobalGAP and BRC requirements, which are typically stricter than general EU MRL requirements. The MRL interception of valore beans in September 2011 was for the wholesale and not retail market. Morocco was a threat during the 2000s to overtake Kenya as the primary African fine bean producer, but over the past year 2010-2011, that threat has receded due to water shortages and Morocco focusing more on citrus production. However, threats to Kenyan supremacy could emerge from Ghana, Mozambique, South Africa or Zimbabwe. The UK supermarket retailers do fine bean retail contracts on a 52 week basis. Prices affected by availability, quality, etc.